

## IP Television Headend

### ➤ Multi Format Input SD-HD MPEG Encoder (778)

Models: 778-S-SD, 778-S-HD, 778-D-SD, 778-D-HD

The MediaStar Evolution 778 range of MPEG Encoders are a powerful and ultra reliable, solid state "out of the box" solution for your entire IP Television, Digital Signage and Digital Media encoding and distribution requirements.

The units can encode incoming digital or analogue video to an H264 or MPEG2 network stream at either an HD or SD resolution and stream it over an IP network to any networked PC using the MediaStar Evolution desktop viewing software (Part 761) or video screen with MediaStar Evolution Digital Media Decoder (Part 780).

Its unique multi format input circuitry allows users to input content in a wide variety of video and PC formats, HDMI; YPbPr; S-Video and CVBS as well as RGBHV. In addition the 778 has an onboard scaling engine, providing the ability to encode SD TV inputs to HD resolutions.

Model 778-D (Dual multi format input sets) offers further encoding options in a single unit. It can encode two independent inputs into two independent SD streams or can be configured to combine both inputs in to a single HD stream at up to 1080i or p resolution. This allows for independent split screen or picture on picture operation on the same display.

A 778 can operate reliably on its own with configuration and stream setup from front panel controls and LCD status display or networked under the control of the MediaStar Evolution Administration software allowing click through to its browser configuration pages. It will also send SNMP traps if required.

The unit is a 'hot swappable' blade that is used in conjunction with the MediaStar Evolution Chassis (Part 770) and is built around an ultra reliable dual-core engine running under Linux. Twin Infra red blaster functionality allows for local source control, RS 232 and USB connectivity enables local operation as well as IP command pass through for remote control of source devices by 3rd party control systems or MediaStar Evolution Digital Media Decoders (Part 780).

A unique SD to HD software upgrade option enables cost effective SD system implementation with future proofed HD capability ensured, all with no hardware change. This coupled with maintenance free operation, small physical size and low power consumption make the 778 ideally suited for both large scale distributed applications or simple single unit deployments.

Included within the scope of delivery:

778 Encoder Blade; Quick Start Guide; RJ45 Cat-5 patch cable; 1.5m HDMI cable; 1.5m YPbPr component video cable; 2m SVGA cable (15 way HDD plugs); 1m 3.5mm jack 2 x Phono (audio) cable; IR Blaster assembly (Part 911-4153).



## Specifications

### Communications and Control

#### Network

- Ethernet 10/100/1000 Base-T, Auto MDIX, RJ-45 modular jack with integrated LEDs.

#### Mode of Operation

- Standalone or in conjunction with the MediaStar Evolution Administration Software.

#### IP Setup and Control

- Configuration via On-Board Browser / Remote status monitoring information.
- ASCII Command/configuration via IP interface, USB comms and RS232 comms interfaces to operate with 3rd party Touch Panel Controllers.

### Video Encoding

- MPEG 4-10/H.264 MP@L4, CBR/VBR encoding, supported bit rates 1.5 Mbps to 12 Mbps
- MPEG-2 MP@HL, CBR/VBR encoding, supported bit rates 1.5 Mbps to 15 Mbps
- Multicast/Unicast UDP MPEG2-TS
- Multicast/Unicast RTP video and audio streams (for use with Quicktime via on-board RTSP server)
- Video resolutions: 480i, 576i, 720p50, 720p60, 1080i50, 1080i60, 1080p25, 1080p30

#### IR Control

- 2 x IR Blaster functions to provide input source device control via IP network.

#### RS232

- Serial port, up to 115200 baud configured for SIPI external configuration/control or IP to RS232 bi-directional pass through for external device control.

- 2 x RS232 ports on 779-D-xx units.

#### Software Updates

- Latest software and SD to HD upgrades can be loaded either through an IP connection to an HTTP server or by inserting a USB key.

### Audio Encoding

- MPEG-1 Layer 2- 32, 44.1, 48 KHz sampling, 32 - 448 Kbps Stereo
- AAC LC encoding - 32, 44.1, 48, 88.2, 96 KHz sampling, 16 - 576 Kbps Stereo

### Video Inputs

- HDMI 1.3 Digital: All VGA and YPbPr resolutions listed
- YPbPr: 480i, 576i, 720p50, 720p60, 1080i50, 1080i60, 1080p25, 1080p30, 1080p50, 1080p60
- VGA: 640x480@60, 800x600@60, 1024x768@60, 1280x720@60, 1280x800@60, 1280x1024@60, 1366x768@60, 1440x900@60, 1600x1200@60, 1680x1050@60, 1920x1080@60, 1920x1200@60(RB)
- CVBS, S-Video: PAL/NTSC

### Audio inputs

- HDMI digital stereo audio
- Analogue stereo audio, 2.2V pk-pk into 10k Ohm, - 3.5mm jack

Power: Multi-rail from MediaStar 770 Rack  
Power Dissipation: 18 Watts  
Weight: 778-S xx 0.5 Kg  
778-D-xx 0.7Kg

Dimensions : 778-S: H129 x W41 x D220mm  
1 x 770 Rack slot (1 of 9)  
778-D: H129 x W81 x D220mm  
2 x 770 rack slots (2 of 9)

Environmental: 0 - 40°C; 32 - 104°F  
Approvals: FCC Part 15, CE, CB

Companion Models & Accessories: 761 Desktop Viewing Application, 762 Evolution Administrator Software, 770 Rack Chassis and Mount Kit, 778 SD to HD Upgrade, 779 SD/HD Encoder Unit, 780 Digital Media Decoder, 911-4153 IR Blaster assembly.